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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,672	08/19/2003	Hiroyasu Okada	2003_1104A	3507

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EXAMINER

FISHMAN, MARINA

ART UNIT PAPER NUMBER

2832

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/642,672	Applicant(s) OKADA ET AL.	
	Examiner Marina Fishman	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/19/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

General Status

1. This is a First Action on the Merits. Claims 1 - 14 are pending in the case and are being examined.

Priority

2. Since the Applicant has not perfected the foreign priority by providing English translation of foreign priority document, the effective filing date of the application is August 8, 2003 (and not the filing date of the foreign priority document, which is 09/09/2002), see MPEP 706.02 "Determining Effective Filing Date of the Reference" under (C).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 3 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 3, lines 6 -7, support for the limitation "a second resistive layer provided around the first resistive layer, the second resistive layer being concentric with the first resistive layer," is not found in the specification. (The specification page 4, lines 10-12, identifies the resistive layer 26 and page 7, lines 23-26 describes the resistive layer being in contact with concentric conductive layers 22A and 22B, however, there is no support for the resistive layer to be first or the second resistive layer nor the second resistive layer being concentric with the first resistive layer)

Claim 6 has similar recitation related to a third resistive layer.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(a or b) as being anticipated by Vance [US 6,313,731].

Regarding Claims 1 and 2, Vance discloses a multidirectional device [Figures 9-11] having:

- a multidirectional control switch [400] with a disc shaped operating member [406];
- a first switch contact [404b, 504b] for outputting a first signal continuously varying as a top surface of the operating member undergoes a sliding press along a locus in arc form; and

- a second switch contact [404a, 504a] for outputting a second signal in accordance with a press [Column 13, lines 62-67];
- a ring shaped first conductive layer on the substrate [402] and a resistive layer [440] facing the first conductive layer [Figures 10b, 10c].

Regarding Claim 3, Vance discloses, a second conductive layer [404a, 504a] is provided around the first conductive layer [404b, 504b]; the second switch contact [406] is formed of material having conductivity and also having a plurality of ridges [440 - the ridges shown to be concentric in Figure 10c], the ridges forms first and second resistive layers, with the second resistive layer concentric with the first resistive layer.

Regarding Claim 4, the first and second resistive layers are also shown as integrally formed.

Regarding Claim 5, Vance discloses, a third switch contact [412; Figure 10b]. Since the third switch contact is spaced apart a larger distance than the first and second switch contacts, it requires a greater force to output the third signal compared to the force required to output second signal from the second switch contact.

Regarding Claims 7-9, multiple ring shaped ridges, which act as contacts, provided on the bottom surface of the operating member. For claim 10, the central projection [440; Figure 10c] acts as third contact of the operating member.

Regarding Claims 11 and 12, the operating member [406] is disclosed with recess [Figure 10c] as well as projection [Figure 10b] at the center; the central contact ridge [440] of the operating member [406] is taken as a fourth contact.

The Examiner wishes to point out that Vance reference qualifies as 35 USC 102(b) reference, as the priority is not perfected (translation of priority document is not received); it qualifies as 35 USC 102(a) reference, as the Vance patent is printed before the application date (and also before the priority date).

7. Claims 1-6 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by De Volpi [US 6,087,925].

Regarding Claims 1 and 2, De Volpi discloses a multidirectional device [Figures 1-3, 8 and 9] having:

- a multidirectional control switch [10] with a disc shaped operating member [36];
- a first switch contact [211a] for outputting a first signal continuously varying as a top surface of the operating member undergoes a sliding press along a locus in arc form; and
- a second switch contact [211b] for outputting a second signal in accordance with a press;
- the first switch contact [211a] is ring shaped and the first resistive [37] layer is facing the first conductive layer.

Regarding Claims 3 and 4, a second conductive layer [211b] is provided around the first conductive layer [211a] and since the second switch contact [37] is formed of material having conductivity, a portion of the second switch contact is taken as second resistive layer (in the same way the invention does), with the second resistive layer

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concentric with the first resistive layer; the first and second resistive layers are also shown as integrally formed.

Regarding Claim 5, De Volpi discloses a third switch contact [211c, Figure 8]. Since the third switch contact is spaced apart a larger distance than the first and second switch contacts, it requires a greater force (requires larger force due overcome the spring 27) to output the third signal compared to the force required to output second signal from the second switch contact.

Regarding Claim 6, De Volpi discloses, the third switch contact [211c] and corresponding third resistive layer [Figures 3 and 9].

Regarding Claims 11 -13, De Volpi discloses:

- the operating member [36; Figure 3] with a projection [31] at the center;
- a push button 31 is disclosed at the center of the operating member, the pushbutton is vertically movable and a fourth switch contact [41] outputting fourth signal as the push button is pressed;
- the first switch contact [211a], a second switch contact [211b], a display unit [17] and a controller [16; Column 4, lines 1-3] connected to the multidirectional switch [Figures 1-3 and 9].

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Volpi [US 6,087,925].

Regarding Claim 14, De Volpi discloses the instant claimed invention except for "controller stops the detection of the second signal while detecting the first signal". It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide controlling feature so that the controller stops the detection of the second signal while detecting the first signal, so that the display unit receives a unique signal.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Inoue et al. [US 5,313,027], Mimata [US 6,399,904], Chandler [US 4,246,452], Asher [US 5,689,285] all disclose switch devices. Applicant also should consider these references in response to this office action. Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

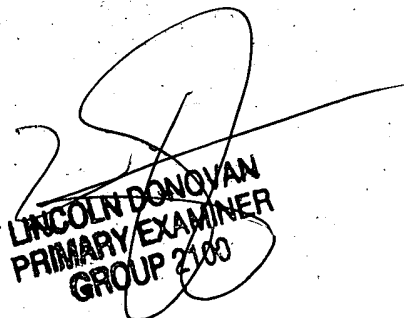
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Fishman
April 26, 2004


LINCOLN DONOVAN
PRIMARY EXAMINER
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